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## An Economic Base Study of Brevard County, Florida

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*University of Central Florida*

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AN ECONOMIC BASE STUDY  
OF BREVARD COUNTY, FLORIDA

BY

BRUCE N. JOSEPH  
B.S., Florida Technological University, 1974

THESIS

Submitted in partial fulfillment of the requirements  
for the degree of Master of Arts in Economics  
in the Graduate Studies Program of  
Florida Technological University

Orlando, Florida  
1975



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## CHAPTER I

### THE ECONOMIC BASE STUDY

#### Introduction

The first step toward meeting the public problems of an area is a detailed knowledge of its economic base. Knowledge about the economic base is essential to sound public decisions in the form of master plans, zoning ordinances, transportation plans, renewal programs and other public improvement plans. Public policy toward taxation, distribution of municipal costs and municipal borrowing should take such information into account. Private investment plans call for knowledge of the market prospects in the region.<sup>1</sup>

The economic base of a community may be viewed as the tax or income base on which tax revenue for any community is predicated. It is the base on which a community relies for the funds to provide public services and facilities that society requires. In a broader application, the term "economic base" refers to the fundamental sources of income that may be available to the citizens in any particular community, i.e., sources of individual livelihoods and community economic activity.<sup>2</sup>

The economic base study is a method of examining the local economy with the goal of an improved understanding of how a

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<sup>1</sup>Committee for Economic Development, Guiding Metropolitan Growth, quoted by Charles M. Tiebout, The Community Economic Base Study (New York: Committee for Economic Development, 1962), p. 11.

<sup>2</sup>Ralph W. Pfouts, The Techniques of Urban Economic Analysis (West Trenton: Chandler-Davis, 1960), p. 45



community earns its living. It identifies the basic sources of employment and income in a community. The economic base study has as its primary objective, the development of information which will help a community solve local problems, make better decisions about matters that will enlarge economic opportunities for its citizens, improve their welfare, and make it possible for them to increase their contributions to national growth.<sup>3</sup>

A regular flow of sound economic information about each local economy and its economic base will contribute to the quality of decisions made at the local level by public official and business leaders. Some of the information needed as a basis for better informed public and private decisions is the sources of current income and employment, the prospects for economic growth or decline and the relationship of land use and community services to economic growth or decline. There are many uses for a base study. It can help business firms and government bodies meet present and future problems (such as: providing an understanding of the current sources of income and employment, pinpointing weaknesses in the community's economy, or an aid in economic education, etc.); it provides the necessary background for more specialized studies (such as: forecasting export employment for a specific year, estimating local employment, estimating land use requirements, etc.);

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<sup>3</sup>Charles M. Tiebout, The Community Economic Base Study (New York: Committee for Economic Development, 1962), pp. 5-9.



and lead to or are often coupled with research into marketing, urban renewal, land use, transportation, water supply, and similar fields of special interest.

The general information provided by an economic base study is valuable to businessmen, civic leaders, government officials, planners, educators and development groups. The following are examples of specific benefits: (1) Base studies provide an understanding of the current sources of income and employment, (2) Base studies can pinpoint weaknesses in the community's economy, (3) As an aid in economic education, base studies are extremely worthwhile. Students can understand general economic principles more easily if they are related to familiar situations in their community, and (4) Information resulting from an economic base study assists in making governmental decisions. Periodic base studies can enable a community to evaluate its progress toward certain broad public goals. These would include: (1) increasing total income and employment; (2) increasing per capita income; (3) attaining reasonable cyclical stability; (4) maintaining healthy prospects for future growth.<sup>4</sup>

Base studies most frequently appear coupled to other studies of specific problems. Perhaps the most frequent use of an economic base study comes as an aid in land use planning. Base studies with projections are an aid in planning governmental capital expenditures needs and expected revenues. Failure to make accurate projections

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<sup>4</sup>Ibid., pp. 15-18.



for major capital expenditures can lead to over- and under-investment by the public.

### Research Objective

Brevard County's economy has been heavily dependent on federal aerospace programs for area employment and economic vitality. Reductions in government spending have generated serious economic crises. Employment has been declining and is expected to continue this trend in the coming years. Many skilled people have had to leave the area to seek employment which has resulted in a reduction in the area labor force. Local industry has been unable to absorb the large excess labor pool, in part because of the magnitude of the unemployed force, but more specifically because the highly specialized skills among the unemployed are not in demand in other than aerospace industries. The outmigration of this young skilled labor force has created an over abundance of housing which has resulted in a buyer's market that is bringing retirees into the area. This excess housing and over construction have caused a serious slump in the construction industry that has not yet recovered from some of the early reductions in aerospace employment. The impact of the loss of employment opportunities and the recession with inflation are still being felt in all sectors of the economy in Brevard County.

The following economic base study of Brevard County seeks to establish the nature and magnitude of the county's income and employment base, with special emphasis on the extent of aerospace



dependency. Moreover, the study will attempt to establish some basic direction for employment diversification efforts presently under consideration by local government officials.



## CHAPTER II

### THE ECONOMIC BASE OF BREVARD COUNTY

Brevard County's economy over the past quarter century has developed along a course heavily influenced by Patrick Air Force Base, Cape Canaveral Air Force Station and the John F. Kennedy Space Center. Prior to this the county economy was based almost entirely on agriculture and the Banana River Naval Air Station, now called Patrick Air Force Base.

New growth in Florida and Brevard County started with the signing of a bill authorizing a launching range at Cape Canaveral on May 11, 1949. On June 13, 1950 the Department of Defense assigned the responsibility for the operation of this Long Range Proving Ground at Banana River, Florida to the Air Force.

In 1958 a second major federal agency, the National Aeronautic and Space Administration (NASA) began operations at the Cape. This was largely a civilian agency created for space operations of a peaceful nature. In August 1961 it took on a vastly new importance when President John F. Kennedy announced an accelerated space exploration program aimed at landing a man on the moon and safely returning him to earth.

The impact of the national defense and space exploration activities at Cape Kennedy reflects and repeats the story of a



rapidly growing Florida but with problems concentrated and multiplied many times over. In 1940, Brevard County with a population of 16,142 people was primarily a rural area whose residents engaged in the growing of cattle, citrus and vegetables and in commercial fishing. The areas that would receive the most growth in population were quite unprepared for what was to come. Eau Gallie had a population of 873 residents, Cocoa 3,098, Melbourne 2,622 and Titusville 2,220 in the early 1940's. By 1950 these four cities had each grown by a little less than four thousand persons, but by 1960 Eau Gallie had 12,300, Cocoa 12,244, Melbourne 2,622, and Titusville, the last to be affected, 6,410. Hence, Brevard County grew by some 371.1 percent from 1950 to 1960, while Florida was growing by some 78.7 percent, the six county area around the Cape by 127.9 percent, and the United States by 18.5 percent. Growth intensified during the sixties, as the population of Brevard County almost doubled, with the greater part of it divided equally among the four principal municipalities.<sup>5</sup>

#### Demographic Profile

The population for Brevard County has continued to increase during the period 1968 through 1974. During this time period the population increased by 18,650 persons which is an approximate increase of 8 percent. From 1968 to 1969 the population increased

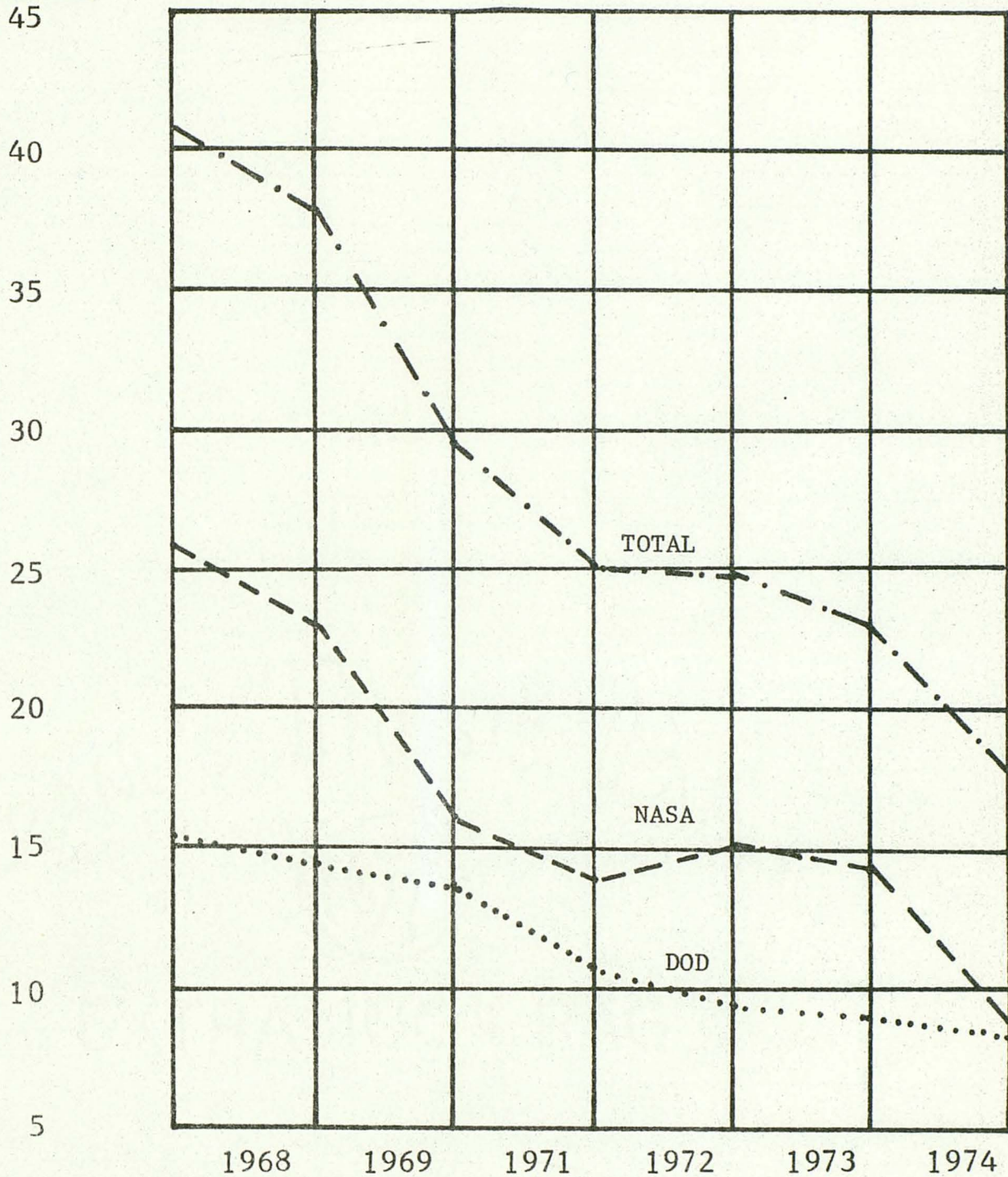
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<sup>5</sup>Charles W. Tebeau, A History of Florida (Coral Gables, Florida: University of Miami Press 1972), pp. 462-464.



FIGURE 1  
NASA/DOD EMPLOYMENT IN BREVARD COUNTY

Thousands



SOURCE: Report of Community Visit, Brevard County, Office of Economic Adjustment, Dept. of Defense.



from 230,000 in Brevard County to 234,000; however, between 1969 and 1970 the population decreased by approximately 4000 back to 230,006. This change is directly related to the NASA/DOD cutbacks in employment.<sup>6</sup>

As revealed in Table 1, total employment in Brevard County generated by NASA and DOD programs at the Kennedy Space Center (KSC) and Eastern Technical Range (ETR) declined from a high of over 41,000 in 1968 to just under 18,000 in 1974. During this same period Kennedy Space Center employment dropped to 9,246 and the Air Force Eastern Test Range employment fell to 13,906, which is 26.3 percent of the 1974 Brevard County work force (See Table 2). Additional cuts are yet to come in all areas of NASA and the Department of Defense (DOD) and these will add to the impact on Brevard County's economy.

Population statistics are valuable when assessing the economic strength of an area for a given period of time. Population levels will tend to rise or fall according to an area's ability to support its residents. As revealed in Table 3, Brevard County population in 1968 was some 230,000 residents, increasing to 248,919 by 1974, representing a growth of 18,919 residents or an 8 percent increase in six years. The largest increases during 1972-73 were the result of the influx of retirees and retired military personnel,

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<sup>6</sup>Brevard County, Florida, Economic Indicator (1st quarter - 1975).



TABLE 1

NASA/DOD EMPLOYMENT IN BREVARD COUNTY, FLORIDA

<u>Year</u>	<u>NASA Civilian &amp; Contractor Personnel</u>	<u>DOD Military Civilian &amp; Contractor Personnel</u>	<u>Total</u>
1968	25,767	15,667	41,434
1969	23,519	14,538	38,128
1970	16,235	13,240	29,475
1971	14,470	10,798	25,268
1972	15,016	9,917	24,933
1973	14,500	8,700	23,200
1974(est.)	9,300	8,600	17,900

SOURCE: Report of Community Visit, Brevard County, Florida,  
Office of Economic Adjustment, Department of Defense.



TABLE 2

BREVARD COUNTY  
WORKFORCE DEPENDENCE ON KSC AND AFETR

<u>Year</u>	<u>Total County Work- force</u>	<u>KSC Work- force</u>	<u>AFETR Work- force</u>	<u>KSC and AFETR Workforce As a Percent of Brevard Workforce</u>
1960	41,900	---	21,108	50.4
1961	45,300	---	24,319	53.7
1962	50,200	---	25,826	51.5
1963	62,600	---	27,376	43.7
1964	76,200	6,289	27,447	44.3
1965	83,700	9,781	27,150	44.1
1966	93,400	17,574	27,240	48.0
1967	98,800	21,482	24,869	46.9
1968	100,800	21,283	22,145	43.1
1969	98,700	22,100	19,968	42.6
1970	91,500	15,387	16,084	34.4
1971	87,100	12,869	14,927	31.9
1972	88,800	13,146	13,446	30.0
1973	87,800	11,211	13,365	28.0
1974	88,100	9,246		26.3

SOURCES: Patrick Air Force Base and Kennedy Space Center Public Affairs Office; Brevard County, Florida, Div. of Health & Social Services, Brevard County Social Indicators, May 1975.



TABLE 3

## DEMOGRAPHIC PROFILE OF BREVARD COUNTY

	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>% Change 1973 to 1974</u>
Population	230,000	234,000	230,006	231,000	240,500	244,750	248,919	8.0
Occupied Households	68,024	69,440	68,560	69,599	74,028	78,086	80,881	3.5
Persons Per Household	3.38	3.38	3.35	3.32	3.25	3.13	3.07	-2.1
Average School Enrollment	61,947	59,185	57,550	57,533	57,655	55,208	52,461	-5.0
Social Security Recipients +65	8,623	9,506	11,015	13,138	15,339	17,230	19,030	10.5
Total Population +65	10,226	11,053	12,796	15,227	17,836	20,035	22,127	10.4
Percent of Total Popula- tion	4.4	4.7	5.6	6.6	7.4	8.2	8.9	

SOURCES: 1970 U.S. Census; University of Florida; Brevard County School Board; Social Security Administration; Brevard County Planning Department Estimates.

NOTE: Total population increased 8.1% in 1968-74 period; age group 65+ increased 116% in the same period.



TABLE 4

POPULATION ESTIMATES BY AGE AND RACE FOR FLORIDA  
AND BREVARD COUNTY: JULY 1, 1973 & 1974

		<u>1973</u>			<u>1974</u>			<u>Percent of</u>
		<u>All Races</u>	<u>White</u>	<u>Nonwhite</u>	<u>All Races</u>	<u>White</u>	<u>Nonwhite</u>	<u>Change</u>
								<u>All Races</u>
<u>Florida</u>	All Ages	7,845,093	6,705,839	1,139,254	8,248,851	7,093,459	1,115,393	5.14
	0-14	1,826,268	1,430,429	395,839	1,852,045	1,453,595	398,451	1.41
	15-24	1,295,634	1,063,443	232,190	1,356,820	1,114,343	242,477	4.72
	25-44	1,776,550	1,521,526	255,025	1,841,900	1,587,438	254,463	3.68
	45-64	1,693,155	1,517,212	175,943	1,755,985	1,580,251	175,734	3.71
	65 & up	1,253,487	1,173,231	80,257	1,442,099	1,357,832	84,268	15.04
<u>Brevard</u>	All Ages	244,744	221,489	23,256	248,919	225,047	23,875	1.70
	0-14	69,633	60,757	8,876	66,643	57,580	9,063	-5.71
	15-24	45,553	41,119	4,434	49,116	44,428	4,688	7.82
	25-44	68,462	62,478	5,984	68,399	62,335	6,064	-0.01
	45-64	46,490	43,605	2,885	49,209	46,245	2,964	5.85
	65 & up	14,607	13,530	1,077	15,555	14,459	1,096	6.49

SOURCES: University of Florida, Division of Population Studies, Table 1. Population Estimates by Age and Race, Bulletin 29, May 1974; Bulletin 32, May 1975.



who had moved into the area to take advantage of the attractive housing market that was created by the departing labor force as a result of the NASA/DOD reductions during this period of time. Population and Occupied Households continued to increase during the years 1970-74 both in the State of Florida and Brevard County. During this same period of time the number of persons per household was declining with the greatest change taking place during the period 1972-73. Average school enrollment was following right along with the decreases in persons per household during this same period. Decline in average school enrollment started a year earlier. During this same time frame, Social Security recipients and total population over age 65 has continued to increase, becoming an increasingly larger percent of total population. The trends are revealed in Tables 3 and 4.

Data from the 1960 census disclosed that Brevard County ranked 11th in distribution of population of Florida with a total of 111,435 residents, or 2.25 percent of the total Florida population. In 1970, the census revealed that Brevard County had climbed to 8th place in rank order with a population of 230,006, 3.39 percent of the total population and as of July 1, 1974, with an estimated population of 248,919, had fallen to 9th place with 3.0 percent of the total population.<sup>7</sup> The average annual percentage change in population for the Standard Metropolitan Statistical Area of

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<sup>7</sup>Florida, Department of Administration. Division of Population Studies, Bureau of Economic and Business Research, University of Florida, Florida Estimate of Population July 1, 1974, State, Counties and Municipalities (Gainesville: University of Florida, January, 1975), pp. 23, 25, 28.



Melbourne-Titusville-Cocoa for the period 1960-1970 was 10.6 percent; for 1970-1972, 2.0 percent; for 1972-1973, 1.8 percent; and by 1973-1974 had decreased to 1.7 percent.<sup>8</sup> A review of the components of population change for Florida and Brevard County reveal that during the 1970-1973 period there was a significant change. (See Tables 5 and 6.)

#### Employment, Unemployment and Labor Force

The impact of Brevard County Aerospace activity is immediately seen in Table 7, Trends in Labor Force Participation Rates, Brevard County, 1960-1974.

The labor force participation rate is the ratio of the total labor force to the population. From 37.6 percent in 1960, the labor force participation rate fell to 35.8 in 1974, with a peak labor force participation rate of 44.5 percent attained in 1964. This peak period was during the beginning of the space program buildup and the influx of personnel at the time were space connected. As the space program progressed, in-migration continued at an increasing rate; however, many were retirees not dependent upon the community for income which accounts for the decrease in the Labor force participation rate decreasing after 1975. The decreases in labor force participation rate from 1968-69 to the present time is a result of the

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<sup>8</sup>Florida, Bureau of Economic & Business Research, Division of Population, Florida Population Growth Rate from 1973 to 1974 Slows Slightly. University of Florida. Bulletin 31 (Gainesville: University of Florida, May, 1975).



TABLE 5

## COMPONENTS OF POPULATION CHANGE - FLORIDA

<u>Population</u>		<u>Change</u>		<u>Components of Change</u>				<u>% Change due to</u>			
		<u>Number</u>	<u>%</u>	<u>Births</u>	<u>Deaths</u>	<u>Nat. Number</u>	<u>Inc. %</u>	<u>Net Migration Number</u>	<u>%</u>	<u>Nat. Inc.</u>	<u>Net Mig.</u>
April 1, 1950	April 1, 1960										
2,771,305	4,951,560	2,180,255	78.67	897,435	349,878	547,557	19.76	1,632,698	50.91	25.11	74.89
April 1, 1960	April 1, 1970										
4,951,560	6,790,929	1,839,369	37.15	1,093,790	595,743	498,047	10.6	1,341,322	27.09	27.08	72.92
April 1, 1970	July 1, 1972	Tot.Chg. Av.Chg.									
6,790,929	7,441,545	650,616	4.26	257,266	173,168	84,047	.55	566,518	3.71	12.93	87.07
April 1, 1970	July 1, 1974	Tot. Chg.									
6,790,929	8,248,851	1,457,922				127,945		1,329,977		8.78	91.22

SOURCES: Florida. Bureau of Economic & Business Research. Division of Population Studies. Components of Florida Population Change. (Tables 1-3) Bulletin 25, July; Florida Population Growth Rate from '73 to '74 Slows Slightly. Bulletin 31, March, 1975; 1973 Age and Race Components of Florida Population. Bulletin Number 29, May 1974.



TABLE 6

## COMPONENTS OF POPULATION CHANGE - BREVARD

<u>Population</u>		<u>Change</u>		<u>Components of Change</u>				<u>% Change due to</u>			
		<u>Number</u>	<u>%</u>	<u>Births</u>	<u>Deaths</u>	<u>Nat. Number</u>	<u>Inc. %</u>	<u>Net Migration Number</u>	<u>%</u>	<u>Nat. Inc.</u>	<u>Net Mig.</u>
April 1, 1950	April 1, 1960										
23,653	111,435	87,782	371.12	16,520	4,139	12,381	52.34	75,401	318.78	14.10	85.90
April 1, 1960	April 1, 1970										
111,435	230,006	118,571	106.40	41,045	9,677	31,368	28.15	87,203	78.25	26.46	73.54
April 1, 1970	July 1, 1972	Tot. Chg.	Av. Chg.								
230,006	240,481	10,475	2.02	8,016	2,996	5,020	.97	5,454	1.05	47.92	52.08
April 1, 1970	July 1, 1974	Tot. Chg.									
230,006	248,919	18,913				7,424		11,441		8.27	3.38

SOURCES: Florida. Bureau of Economic & Business Research. Division of Population Studies. Components of Florida Population Change. (Tables 1-3) Bulletin 25 (Gainesville: University of Florida, 1973); Florida Population Growth Rate from '73 to '74 Slows Slightly. Bulletin 31. (Gainesville: University of Florida, 1975); 1973 Age and Race Components of Florida Population. Bulletin 29. (Gainesville: University of Florida, May 1974).



TABLE 7  
TRENDS IN LABOR FORCE PARTICIPATION RATES,  
BREVARD COUNTY, 1960-1974

<u>Year</u>	<u>Population</u>	<u>Civilian Labor Force</u>	<u>Labor Force Participation Rate</u>
1960	111,435	41,900	37.6%
1961	121,600	45,300	37.3%
1962	136,800	50,200	36.7%
1963	150,800	62,600	41.5%
1964	171,400	76,200	44.5%
1965	200,300	83,700	41.8%
1966	223,700	94,500	42.8%
1967	238,800	100,000	41.9%
1968	247,300	102,000	41.2%
1969	234,000	101,700	43.4%
1970	230,006	94,900	41.3%
1971	231,000	87,500	37.9%
1972	240,500	88,900	37.0%
1973	244,750	89,200	36.5%
1974	248,650	89,000	35.8%

SOURCES: U.S. Census of Population, Brevard County Planning Department; Florida State Employment Service; Economic Base Study, Cape Kennedy Area Chamber of Commerce.



reductions in Federal programs at the Space Center and Patrick Air Force Base.

In 1960 this participation resulted in a total labor force of some 41,900 persons or 37.5 percent of the total population of the county. The total labor force for 1970 was approximately 95,000 persons or 41.3% of the total county population. Of the 1960 labor force, approximately 5,100 were employed by the government directly and an undetermined number were supporting government programs in one form or another. By 1968 the Brevard County labor force had grown to 101,900 workers (41.2% of total county population), an increase of 243.2 percent in eight years. Government employment had increased to 15,900, a change of 10,800 employees, or 211.8 percent. These figures do not reflect government support personnel from the other sectors.<sup>9</sup> Other sectors were expanding along with this sector, however at a slightly slower rate than the government sector. Table 8 and Figure 4 show the change in the employment and labor force growth during the period 1960-1974.

A 1968 economic base study of Brevard County estimated that 84 percent of the total county employment was due either directly or indirectly to NASA or DOD programs.<sup>10</sup> It is not surprising that the

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<sup>9</sup>Brevard County, Florida, Brevard County Development Potentials Summary 1969-1990 (Merritt Island: Brevard Planning Department, June 1969), pp. 6, 7.

<sup>10</sup>Brevard County, Florida, Planning & Zoning Department. "Analysis of the Economy of Brevard County, Florida (1968-1974) and Assessment of Impact on the Economy from Proposed Reduction of Operations at Patrick Air Force Base." (Merritt Island: Brevard County Planning & Zoning Department, Dec. 6, 1974). mimeographed.



TABLE 8

EMPLOYMENT & LABOR FORCE GROWTH  
BREVARD COUNTY, 1960-1974

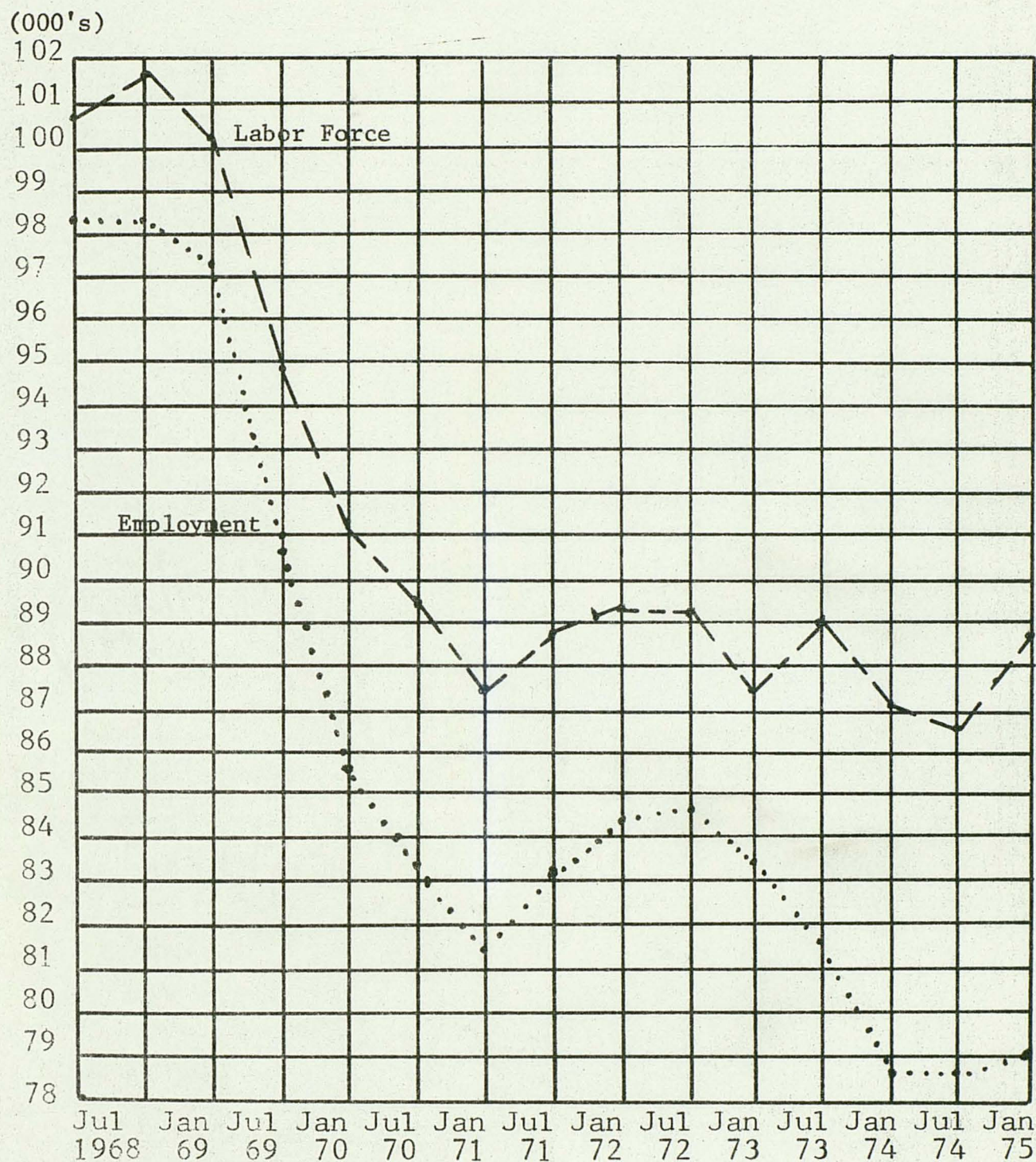
	<u>1960</u>	<u>1968</u>	<u>1974</u>	% Change <u>1960-1968</u>	% Change <u>1968-1974</u>
Total Labor Force	41,900	101,900	89,000	143.2	-12.6
Unemployment	1,500	2,300	7,400	53.3	221.74
Agriculture	800	1,200	1,700	50.0	41.67
Wage & Salary					
Construction	2,800	5,400	5,000	92.9	- 7.41
Manufacturing	6,900	19,000	10,300	175.4	-43.79
Trans., Comm., Utilities	1,200	2,300	4,000	91.7	73.99
Trade	5,800	13,400	17,800	131.0	32.84
Finance, Insurance & Real Estate	1,000	2,700	3,500	170.0	29.63
Services	10,700	28,600	17,800	167.3	-37.76
Government	<u>5,100</u>	<u>15,900</u>	<u>17,100</u>	211.8	7.55
	34,300	88,500	75,500	158.0	-14.69
Other Nonagriculture	6,100	11,100	6,100	82.0	-45.05

SOURCES: Florida State Employment Service; Brevard County, Florida, Brevard County Development Potentials Summary 1969-1990, Brevard County Planning Department; Economic Base Study, The Cape Kennedy Area, Development Potentials, The Cape Kennedy Area, Development Potentials, The Cape Kennedy Area Chamber of Commerce, Cocoa, Florida; Florida. Bureau of Economic and Business Research. University of Florida. Florida Statistical Abstract 1974. 8th ed. Gainesville: University of Florida Press, 1974.



FIGURE 2

## LABOR FORCE AND EMPLOYMENT, BREVARD COUNTY, FLORIDA



SOURCES: Florida Dept. of Commerce, Florida Bureau of Employment Services; Florida Dept. of Commerce, Labor Market; East Central Florida Regional Planning Council, 4th Quarter, 1974, The Council Quarterly.



large continuing reduction of NASA/DOD employment is having a tremendous impact on Brevard County's employment crisis. Increased unemployment has in turn stimulated declines in the total county labor force as well. The latter, of course, is the result of a lack of alternate employment opportunities for the unemployed, necessitating their out-migration from Brevard County in search of employment elsewhere.

Table 9 and Figure 3 reveal the stimulus for these cutbacks, the declining trend of KSC/ETR contracts. The KSC contracts have decreased \$180 million or 50 percent during the period 1968-1974 and the ETR contracts have decreased \$47 million or 53 percent during this same period of time. In turn, there has been a continuing decrease in the size of the manpower requirements. Figure 2 demonstrates this complementary relationship. Kennedy Space Center will go through its last major shakeout shortly after the United States Soviet space mission is completed. About 1400 employees are expected to lose their jobs, thus reducing the spaceport's employment to approximately 9,500 personnel. This represents a 73 percent decline from the peak period 1968-69 level and a 12 percent decline since 1964.<sup>11</sup> (See Figure 4.)

There are additional cutbacks planned for Patrick Air Force Base, scheduled to go into effect during 1975. The Department of Defense made an announcement in November 1974 that it was moving

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<sup>11</sup>"Job Picture Changes," TODAY (Brevard County), 3 May 1975, sec. C, p. 14.



TABLE 9

VALUE OF KSC AND ETR CONTRACTS IN BREVARD COUNTY, FLORIDA  
(Excludes Down Range Ships)  
(R in Millions)

<u>Fiscal Year</u>	<u>KSC Contracts</u>	<u>ETR Contracts</u>	<u>Total</u>
1968	361	100	461
1969	399	97	496
1970	271	94	365
1971	271	81	352
1972	192	76	268
1973	210	52	262
1974	181	53	234

SOURCES: Report of Community Visit, Brevard County Florida, Office of Economic Adjustment, Department of Defense; Public Information Office, Patrick Air Force Base, Florida; Public Information Branch, NASA, Kennedy Space Center, Florida.

flight line operations and certain aircraft from Patrick Air Force Base to other bases in the U.S. They further stated that the air field operations would at that time be placed on an eight hour operating day.<sup>12</sup> In spite of attempts to defer or even cancel these reductions by various political factions and local organizations, the plan is proceeding on schedule. Once implemented, there will be a loss of 460 military positions and 270 civilian positions by July 1976.

This by no means infers a lack of other sources of employment in Brevard County. Latest available data indicate that there are

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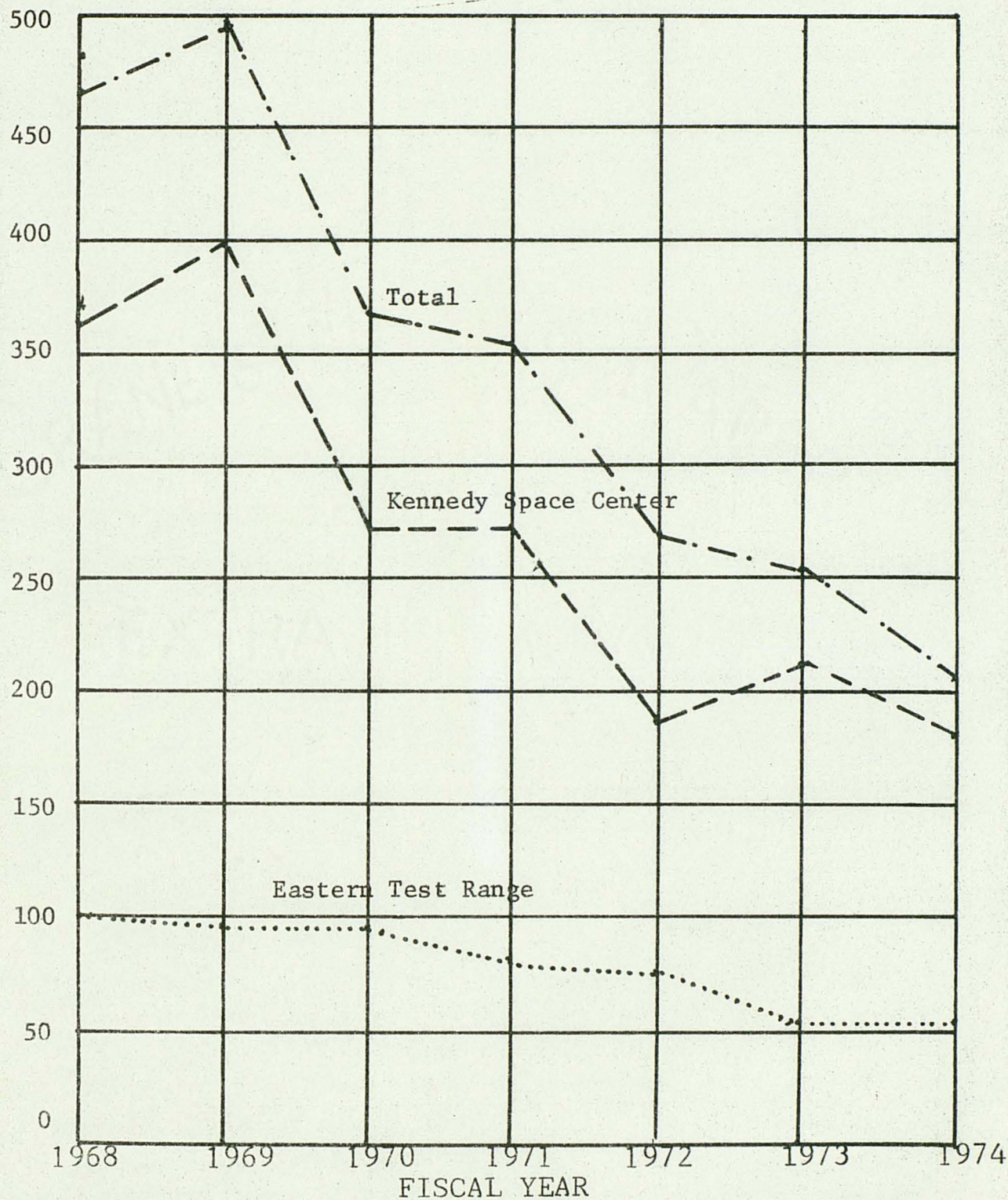
<sup>12</sup>Ibid.



FIGURE 3

VALUE OF KSC AND ETR CONTRACTS IN BREVARD COUNTY  
(Excludes Down Range Ships)

\$ in Millions



SOURCES: Report of community visit, Brevard County, Florida, Office Economic Adjustment, Dept. of Defense. Public Information Office, Patrick Air Force Base, Florida.



approximately 280 firms in the county. As of January 1975, the total employment in Brevard County was 78,200.<sup>13</sup> This figure includes manufacturing employment with approximately 10,300 employees, construction with 5,000 employees, wholesale and retail trade with 16,800 employees, and services and other wage and salary workers with 35,000 employees.<sup>14</sup> Of the 10,300 personnel working in manufacturing, some 75 percent were employed in ordinance and electrical equipment, 5.8 percent in transportation equipment, 7.8 percent in other durable goods, and 10.7 percent in the manufacture of nondurable goods.

Some of the existing manufacturers in the Melbourne area are Harris Corporation, producers of Electronic equipment, employing 4,400 workers; Documation, Inc., punched card readers, employing 120; DBA Systems, Inc., producers of Electro-optical Hardware, employing 120; Collins Radio, Avionics, employing 95; and many other manufacturers producing a large variety of items. Some of the existing manufacturers in the Cocoa area are Cape Publications, Inc., morning & Sunday newspaper employing 250; Heyl & Petterson, steel and aluminum fabrication, employing 156; Houdaille Industries, producers of Asphaltic concrete, employing 75; and a large number of other industries who manufacture a variety of items and employ under 100 people. In the Titusville area McDonnell-Douglas Astronautic Company, producers of anti-tank missiles, has a payroll of

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<sup>13</sup>Florida, Department of Commerce, Division of Employment Security, Brevard County Labor Market Trends. Letter 139 (Tallahassee: February, 1975).

<sup>14</sup>Ibid.



approximately 515 people, Prattville Apparel, makers of garments employing 85 people, Hovermarine Corporation, manufacturers of Hovercraft boats, employs 58 people, and many others manufacturing a multitude of items.<sup>15, 16, 17</sup>

The firms in Brevard County by major group, Standard Industrial Classification, are: 19 - Ordnance & Accessories, 20 - Food & Kindred Products, 23 - Apparel & Other Finished Products made from Fabrics and Similar Materials, 24 - Lumber and Wood Products (except furniture), 25 - Furniture and Fixtures, 26 - Paper and Allied Products, 27 - Printing, Publishing, and Allied Industries, 28 - Chemicals and Allied Products, 29 - Petroleum Refining and Related Industries, 30 - Rubber & Miscellaneous Plastic Products, 31 - Leather and Leather Products, 32 - Stone, Clay and Glass Products, 33 - Primary Metal Industries, 34 - Fabricated Metal Products, 35 - Machinery (except electrical), 36 - Electrical Machinery, Equipment and Supplies, 37 - Transportation Equipment, 38 - Professional, Scientific and Controlling Instruments,

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<sup>15</sup>Florida, Department of Commerce, Division of Economic Development, Bureau of Area Development, Economic Development Profile Melbourne Area Brevard County, Florida (Tallahassee: January, 1975), pp. 1-3.

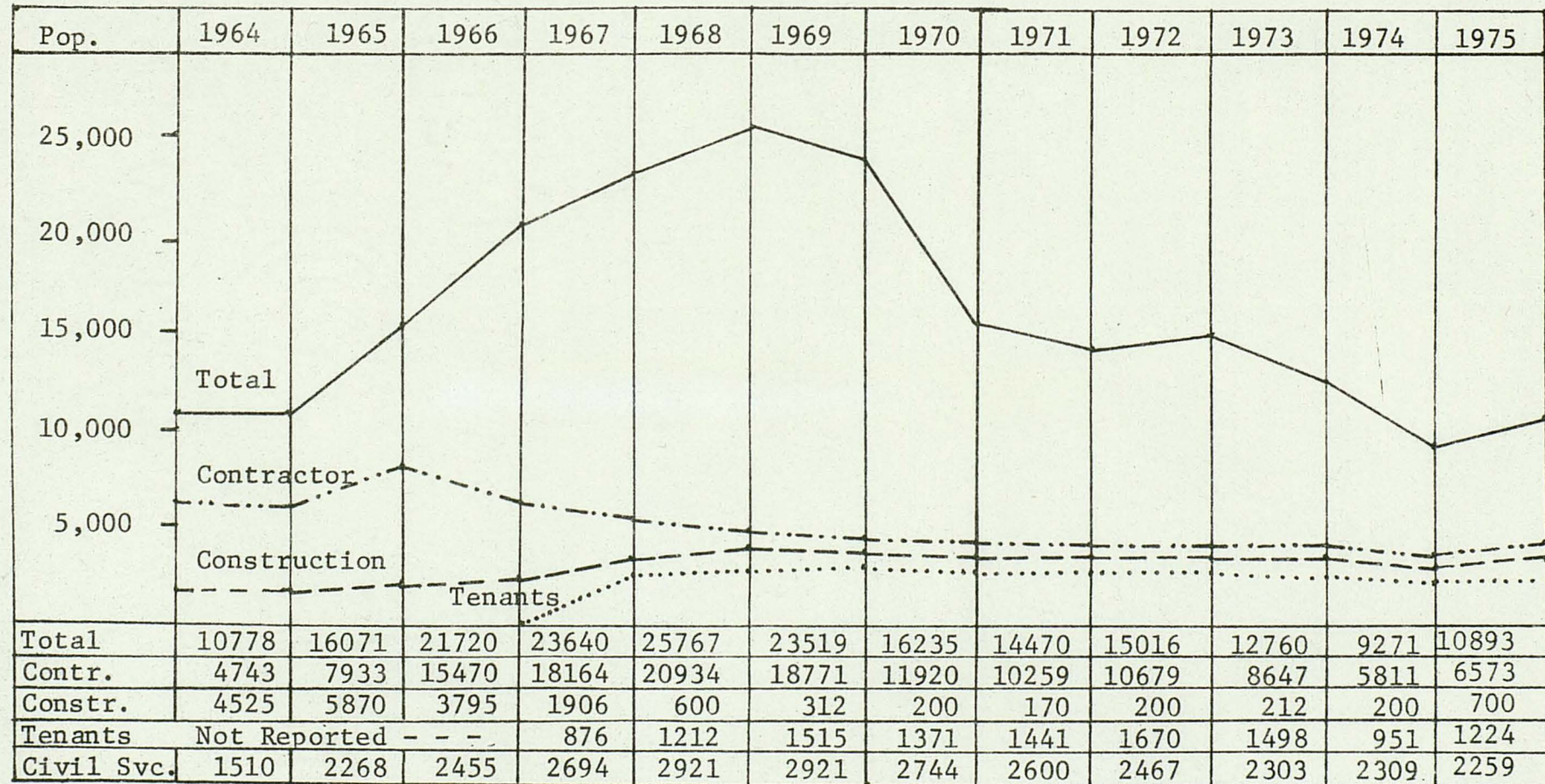
<sup>16</sup>Florida, Department of Commerce, Division of Economic Development, Economic Development Profile Cocoa Area Brevard County, Florida (Tallahassee: January, 1975), pp. 2-5.

<sup>17</sup>Florida, Department of Commerce, Division of Economic Development, Economic Development Profile Titusville Brevard County (Tallahassee: March, 1974), pp. 1-3.



FIGURE 4

## KSC MANPOWER FISCAL YEARS 1964 THROUGH 1975

SOURCE: Brevard County (Florida) TODAY, 3 May 1975.



39 - Miscellaneous Manufacturing Industries, 73 - Miscellaneous Business Services, and 89 - Miscellaneous Services.<sup>18</sup>

Past experience has shown that for every 100 job reductions by NASA/DOD, 13 jobs in the community are lost. For purposes of this assessment, two military positions are assumed to have the same effect as one civilian on the local economy.<sup>19</sup> Thus with the upcoming move of light line operations and certain aircraft from Patrick Air Force Base, the loss of 460 military positions and 270 civilian positions will be a greater loss than the 730 direct losses attained by adding the two figures together. In considering that two military positions affect the economy the same as the loss of one civilian position, the effective loss to the community's economic position as a result of the loss of 460 positions would be the same as the loss of 230 civilian positions. Under these conditions we would have an economic impact on the community that would closely resemble the effects of a loss of 500 civilian positions. When we consider the secondary/basic ratio of 13 additional positions lost for each additional 100 civilian positions, we will have another 65 jobs lost indirectly. Therefore, in addition to the 730 combined positions eliminated at Patrick Air Force Base, there will be another

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<sup>18</sup>Brevard County, Florida, Directory of Manufacturing and Related Industries Brevard County, Florida 1974-1975 (Merritt Island: Brevard Economic Development Council, n.d.), p. 1.

<sup>19</sup>Brevard County, Florida, Planning & Zoning Department, "Analysis of the Economy of Brevard County, Florida (1968-1974) and Assessment of Impact on the Local Economy from Proposed Reduction of Operations at Patrick Air Force Base" (Merritt Island: Brevard County Planning and Zoning Department, December 6, 1974), p. 30.



65 jobs lost in the community, making a total employment loss of 795 jobs.<sup>20</sup>

In attempting to determine the impact on the local unemployment rolls, it was assumed that 144 of the civilians would be transferred, based on the historical ratio of gains to losses listed for this action. It was further assumed that 10 percent of those not transferred would retire. Based upon these historical observations, the net increase of the unemployment rolls as a direct result of the cutbacks would be some 113 workers. When adding the 65 jobs indirectly lost, the overall total increase of the Brevard County unemployment rolls would be 178 workers.<sup>21</sup> The overall increase of 178 on the Brevard County unemployment rolls is made up of both direct and indirect civilian losses. No doubt, there will be some military personnel who have reached the retirement age who will remain in the area and in all probability will take advantage of their right to draw unemployment compensation for the maximum period of time or until they find another job in the civilian market thus further increasing the Brevard County unemployment rolls.

#### Income

The significant changes in the Brevard County employment base have created considerable income adjustments. Tables 10 and 11 show the effects of the NASA/DOD employment cutbacks on the level of

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<sup>20</sup>Ibid., p. 31.

<sup>21</sup>Ibid.



income. The average annual increase in Brevard personal income from 1968 to 1972 was only +1.0 percent, while the rate for Florida was +12.5 percent, and for the United States, +7.8 percent. An adjustment for population during this period reveals a striking average annual rate of decrease in Brevard per capita income of 1.2 percent (the lowest rate of growth of any area in the State), while the United States increased 6.7 percent and Florida recorded an average

TABLE 10

TOTAL PERSONAL INCOME  
(In Millions)

	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>Avg. Ann. % Change</u>
U.S.	684,746	745,869	798,949	853,505	923,294	
% Change	-	8.9	7.1	6.8	8.2	6.7
Florida	19,829	22,572	24,254	28,042	31,779	
% Change	-	13.8	11.9	11.0	13.3	12.5
Brevard	872	870	825	830	907	
% Change	-	-0.3	-5.1	0.6	9.2	1.0

SOURCES: Brevard County, Florida. Planning & Zoning Department. "Analysis of the Economy of Brevard County, Florida (1968-1974) and Assessment of Impact on the Local Economy from Proposed Reduction of Operations at Patrick Air Force Base," December 6, 1974; University of Florida, based on unpublished data from U.S. Department of Commerce, Bureau of Economic Analysis: Business and Economic Dimension, Volume 10, Number 4, July and August 1974.



TABLE 11

PERSONAL INCOME EARNED ON PLACE-OF-WORK BASIS  
IN THE PRIVATE SECTOR BY INDUSTRIAL CLASS  
(Brevard County, Florida)

Total Private Non-farm Earnings	658,342	646,019	563,477	630,735	566,895
Manufacturing	241,625	227,976	173,058	161,247	186,709
Mining	55	(D)	(D)	(D)	(D)
Contract Construction	41,712	32,871	30,626	26,805	36,231
Transportation, Communications and Public Utilities	17,805	18,902	20,522	21,708	24,806
Wholesale and Retail Trades	70,860	79,873	79,206	89,469	93,854
Finance, Insurance and Real Estate	20,702	21,979	21,137	23,782	26,249
Services	264,657	262,562	237,109	205,526	196,514
Other Private Industry	1,646	(D)	(D)	(D)	(D)

SOURCES: Brevard County, Florida. Planning & Zoning Department. "Analysis of the Economy of Brevard County, Florida (1968-1974) and Assessment of Impact on the Local Economy from Proposed Reduction of Operations at Patrick Air Force Base," December 1974; University of Florida, based on unpublished data from U.S. Department of Commerce, Bureau of Economic Business and Economic Dimension, Volume 10, Number 4, July and August 1974.



increase of 9.2 percent.<sup>22</sup> The specific income effects of the NASA/DOD cutbacks can likewise be seen in the decrease in the earnings from manufacturing, contract construction, and services employment (Table 11). Total private nonfarm earnings started to decline in 1968 and continue to fall through 1971, the period when NASA/DOD started reducing expenditures, programs and releasing personnel. Manufacturing, Contract Construction, and Services were hardest hit and though slight recovery started in 1972, the County economy has never fully recovered because of the continued reductions in force in government programs and the inability of the community to absorb highly specialized skills used only in the aerospace industry. Likewise, U.S. Census data reveal a mean income deficit for Florida families of \$1,494, as compared to \$1,621 for Brevard County.

The proposed reduction in force for Patrick Air Force Base will place an added strain on the income for the area. The loss of the 460 military positions will cause an approximate loss of \$4.37 million in income and the 270 civilian positions will account for another \$2.84 million--a combined annual loss of approximately \$7.21 million.<sup>23</sup>

The income data for Florida and Brevard County, as compiled by the 1970 Census, revealed respective median incomes for Florida

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<sup>22</sup> Brevard County, Florida, Planning & Zoning Department, "Analysis of the Economy of Brevard County, Florida (1968-1974) and Assessment of Impact on the Local Economy from Proposed Reduction of Operations at Patrick Air Force Base" (Merritt Island: Brevard County Planning and Zoning Department, December 6, 1974), p. 16.

<sup>23</sup> Ibid., pp. 29,30.



and Brevard County of \$8,267 and \$11,145. Some 12.7 percent of Florida families had incomes below the poverty level, while Brevard County had some 8.2 percent of its families in this category. .

#### Sales or Consumption

Florida levies a 4 percent sales tax on most goods, excluding food, gas, medical expenses and personal service. Thus, the sales tax reflects the magnitude of retail sales which are indicative of both the consumer's willingness and ability to spend. The collections clearly reflect the effects of the NASA/DOD employment reductions. Data presented in Table 12 and Figure 5 reveal a steady decline in retail sales in both current and constant dollars over the 1968-1974 period. The increases noted in 1972 and 1973 for the most part are the result of the influx of new residents who are not dependent on the local economy for income and consumption. The increases reflected in the year 1972 were, in part, due to Walt Disney World's initial year of operation. Interestingly the recent decline in retail sales is to some extent a function of a tourism slowdown, coupled with another employment cutback by NASA.

A sales tax comparison between Brevard County and selected Florida Eastern coastline counties for 1973-1974 (Table 13) shows that Brevard County has had the lowest rate of increase in sales tax collection. Brevard County sales tax collections increased some 6.33 percent versus a 21.5 percent increase by the next highest county, with the highest county increase some 447 percent above Brevard County. Some of the more apparent reasons for the decreased



TABLE 12

SALES TAX COLLECTIONS  
(Brevard County, Florida)  
(In Actual and Constant 1967 Dollars)

<u>Year</u>	<u>Actual (In Millions)</u>	<u>Constant (In Millions)</u>	<u>Constant \$ % Change</u>
1968	\$12.504	\$12.000	-
1969	12.967	11.810	-1.6
1970	12.834	11.035	-6.6
1971	14.309	11.796	+6.9
1972	17.883	14.272	+21.0
1973	22.114	16.615	+16.4
1974	23.868	16.138	-2.9

SOURCES: Florida Department of Revenue; Brevard Planning & Zoning Department, "Analysis of the Economy of Brevard County, Florida (1968-1974) and Assessment of Impact on the Local Economy from Proposed Reduction of Operations at Patrick Air Force Base," December 1974.

levels of spending on taxable items include higher levels of unemployment; fewer purchases of automobiles; higher prices of food, gas and medical services (and in turn greater allocation of disposable income) which are not taxed; a population hedging against the possibility of unemployment by savings and a decrease in the number of tourists visiting the area.

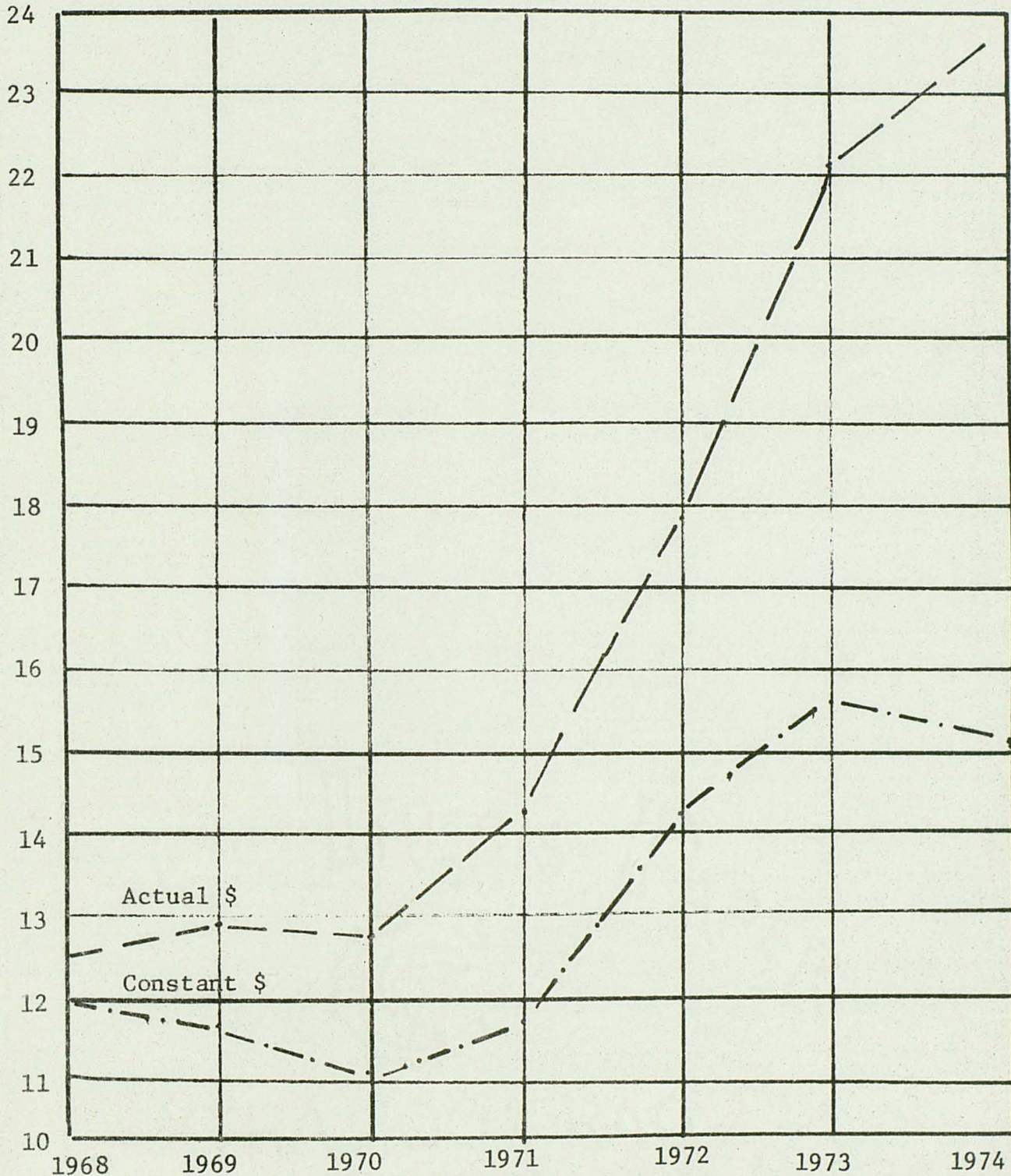
Although present economic uncertainties have taken their toll on retail sales, the trend for the period 1970-1974 reveals



FIGURE 5

SALES TAX COLLECTIONS - BREVARD COUNTY, FLORIDA  
(in actual and constant 1967 dollars)

\$ Millions



SOURCE: Florida Department of Revenue



TABLE 13

SALES TAX COLLECTIONS  
COMPARISON OF YEARLY RATE INCREASE  
1973 to 1974  
(Selected Counties)

<u>County</u>	<u>Increase</u>
Brevard	6.33
Flagler	34.64
Indian River	11.33
Martin	19.84
Palm Beach	11.24
St. Johns	13.29
St. Lucie	7.69
Volusia	9.67
Average	14.25

SOURCES: Florida Department of Revenue; Brevard County, Florida. Planning & Zoning Department. "Analysis of the Economy of Brevard County, Florida (1968-1974) and Assessment of Impact on the Local Economy from Proposed Reduction of Operations at Patrick Air Force Base," December 1974.

sustained growth via a compound average annual growth rate of 17.75 percent. A comparison with other central Florida counties reveals that this rate is between 2.5 percent and 14.5 percent lower than the other counties. Table 14 shows gross retail sales for various central Florida counties.



TABLE 14

SALES  
(Gross Retail Sales)  
(In \$1,000,000)

<u>Year</u>	<u>Brevard</u>	<u>Indian River</u>	<u>Lake</u>	<u>Orange</u>	<u>Osceola</u>	<u>Seminole</u>
1970	\$536.7	\$ 98.1	\$220.1	\$1811.7	\$ 57.8	\$190.6
1971	488.2	116.2	264.0	2149.4	75.7	244.4
1972	703.2	143.6	328.5	2941.4	95.5	335.9
1973	887.9	185.1	413.0	3515.7	152.1	454.8
1974	1025.6	223.0	462.1	3887.4	177.3	582.0
Average Compound Growth	122.23	31.23	60.5	518.9	28.99	97.78
Average Compound % Annual Growth	17.75	22.90	20.48	21.4	33.26	32.23

SOURCES: Florida Department of Revenue, Division Sales and Use Tax; East Central Florida Regional Planning Council, The Council Quarterly, 4th Quarter 1974.

Tourism

The foremost tourist attraction in Brevard County is the NASA and Air Force facilities located at the Kennedy Space Center. Although no data are available to provide an accurate count of the number of tourists visiting Brevard County, a recent survey by the Florida Division of Tourism indicates that the Kennedy Space Center



ranked number five among statewide attractions.<sup>24</sup> Consequently the number of people taking the NASA Tours which originate from the Visitor Information Center (VIC) would seem to be a reasonable indicator of the Brevard tourist industry. Although many visitors come to the area without visiting the Space Center, it serves as a focal point for area tourism. Table 15 reveals the change in NASA tours between 1972 and 1974.

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<sup>24</sup>Florida, Department of Commerce, 1974 Florida Tourist Study (Tallahassee: Office of Market Research, n.d.), pp. 11, 12.



TABLE 15

## NASA TOURS

	<u>1972</u>	<u>1973</u>	<u>1972-73</u> <u>% Change</u>	<u>1974</u>	<u>1973-74</u> <u>% Change</u>
January	69,327	72,084	3.98	52,343	-27.39
February	99,957	95,550	-4.41	57,125	-40.22
March	137,326	112,137	-18.35	57,168	-49.02
April	139,684	138,416	-00.91	80,521	-41.83
May	72,890	76,641	5.15	46,799	-38.94
June	171,366	159,451	-6.95	91,817	-42.42
July	213,355	204,510	-4.15	146,338	-28.42
August	183,342	177,772	-3.04	133,725	-24.78
September	47,937	43,516	-9.22	33,592	-22.81
October	52,987	51,413	-2.97	39,269	-23.62
November	70,707	59,871	-15.33	42,641	-28.78
December	126,164	72,760	-42.33	97,748	34.34
Annual Average	115,420	105,343	-8.73	73,257	

SOURCES: NASA-TWA Tours; Economic Indicator, Brevard County Planning Department, 4th Quarter 1973 and 1st Quarter 1975.



### CHAPTER III

#### MINIMUM EMPLOYMENT REQUIREMENTS FOR BREVARD COUNTY

Although the Brevard economy has experienced some measure of stability via the influx of new residents not dependent upon the local economy for employment, it for the most part remains tied to aerospace activity. Unfortunately, little was done during the "boom" years (1950-1970) to diversify the county's economic base. As a consequence, unemployment is increasing with consequent disruption of the economic climate. Diversification is essential to growth, but proper diversification requires a thorough understanding of the area's employment structure.

Comparing the percentage distribution of Brevard County employment by sector, with national averages (Table 16), some notable disparities are revealed. While Brevard employment is significantly below national levels in Agriculture and Manufacturing (especially non-durables), it strikingly surpasses the national norms in Retail Trade and Public Administration--an obvious result of the aerospace dominance.

An alternative procedure for understanding the urban employment structure is the minimum requirement method. This method yields a quantitative statement which establishes the minimum percentage of a labor force required in various sectors of an economy to maintain



TABLE 16

COMPARATIVE DISTRIBUTION OF EMPLOYMENT  
UNITED STATES VS. BREVARD COUNTY

Sector	National		Brevard County	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Ag., Fish.	4,349,884	6.7	875	1.15
Min.	654,006	1.0	0	0.00
Const.	3,815,937	5.9	5,000	6.55
Dur. Mfg.	9,828,689	15.2	9,200	12.05
N-Dur.	7,684,398	11.9	1,100	1.44
Transport.	4,458,147	6.9	4,000	5.24
Whsle.	2,212,984	3.4	2,400	3.14
Retail	9,479,651	14.8	15,400	20.16
Fin., Ins.	2,694,630	4.2	3,500	4.58
Bus. Ser.	1,610,728	2.5	4,200	5.50
Pers. Ser.	2,858,494	6.0		
Entertain.	502,846	0.8	13,600 <sup>a</sup>	17.81
Prof. Ser.	7,577,890	11.7		
Pub. Admin.	3,202,890	5.0	17,100	22.39
Indus. not Reported	2,608,085	4.0	0	0.00
Total Employed	64,639,247	100.1	76,375	100.01

SOURCES: Florida. Department of Administration. Division of Population Studies. Bureau of Economic and Business Research. University of Florida. Florida Estimate of Population July 1, 1974, State, Counties and Municipalities. Gainesville: University of Florida, January, 1975, p. 2; Florida. Department of Commerce. Division of Employment Security. Brevard County Labor Market Trends. Letter 140. Tallahassee: March-April 1975; Edward Ullman, Michael Dacey, and Harold Brodsky. The Economic Base of the 101 Largest United States Metropolitan Areas and Minimum Requirements for 1960. Washington, D.C.: Center for Urban and Regional Studies, 1971, p. 19; Interview with Charles J. Johnson, Florida Department of Commerce, Division of Labor, Cocoa, Florida, 11 August 1975.

<sup>a</sup>This figure includes Personal Service, Entertainment, and Professional Service.



its viability. Employment that is greater than the minimum requirement is called excess employment. The minimum requirements method closely approximates the service or internal needs of an area, and the excess employment approximates the export employment. Moreover, it provides one of the best short-cut methods of analyzing an area's employment base.

Application of the minimum requirements method to an area with a particular population requires the coefficients of a linear regression describing the observed relationship between size of area and minimum employment.

The relationship to be estimated is:

$$\hat{E}_i = a_i + b_i \log P$$

where  $E_i$  is the estimated minimum employment requirement in percent for industry  $i$ ;  $P$  is the population of the city; and  $a$  and  $b$  are parameters. The estimation of  $a$  and  $b$  uses:

$$E_{i\tau} = a_i + b_i \log P_\tau$$

where  $E_{i\tau}$  is the observed minimum employment in the population class, and  $P_\tau$  is the lower population bound on the  $\tau$  class.

Recent work by Edward L. Ullman, Michael F. Dacey and Harold Brodsky has resulted in the specification of employment coefficients for some 13 Industry Types based on urban populations for the Census Year 1960.<sup>25</sup> By applying these coefficients to estimated

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<sup>25</sup> Edward Ullman, Michael Dacey, and Harold Brodsky. The Economic Base of the 101 Largest United States Metropolitan Areas and Minimum Requirements for 1960 (Washington, D.C.: Center for Urban and Regional Studies, 1971), p. 30.



Brevard County population for 1974, we are able to establish minimum County employment needs by major sector (Table 17). Comparing the minimum percentage labor requirements for Brevard County with actual percentage distributions reveals excess employment in all but the Non-Durable Goods sector. The most striking excess appears in Durable Goods, Retail Trade and Public Administration. The latter two sectors conform well to previous observations. The excess employment in the Durable Goods sector, especially with shortages in Non-Durable Goods manufacturing, is something of mystery. Conceivably, this relationship is once again the result of heavy ties of durable goods manufacturing to the space effort.

From the standpoint of employment diversification, the minimum requirements method clearly dictates the need to concentrate primarily on non-durable goods manufacturing, and to a lesser degree, wholesale trade and transportation.



TABLE 17

## BREVARD COUNTY MINIMUM REQUIREMENTS

<u>Sector</u>	<u>Coefficients</u>		<u>Log of 1974</u>	<u>Brevard County</u>
	<u>(a)</u>	<u>(b)</u>	<u>Brevard Pop.</u>	<u>Min. Labor Req.</u>
Agriculture	-1.3638	.3961	5.396058048	.774
Construction	-3.2909	1.3314	5.396058048	3.893
Dur. Mfg.	-4.1601	1.2931	5.396058048	2.818
Non-Dur. Mfg.	-3.8811	1.4055	5.396058048	3.703
Transport.	-1.5043	1.0024	5.396058048	3.905
Whsle.	-3.4871	1.0573	5.396058048	2.218
Retail	6.1455	1.2195	5.396058048	12.726
Finance	-2.7432	1.0067	5.396058048	2.689
Bus. Service	-1.6950	.6185	5.396058048	1.642
Pers. Serv.	- .4457	.7153	5.396058048	3.414
Entertain.	- .6360	.1966	5.396058048	.425
Professional	- .0702	1.6774	5.396058048	8.981
Pub. Admn.	- .8686	.6125	5.396058048	2.436
Total				
Employment	-19.0483	12.7714	5.396058048	49.624

SOURCES: Edward Ullman, Michael Dacey, and Harold Brodsky. The Economic Base of the 101 Largest United States Metropolitan Areas and Minimum Requirements for 1960. Washington, D.C.: Center for Urban and Regional Studies, 1971, p. 30; Florida. Department of Administration, Division of Population Studies. Bureau of Economic and Business Research. University of Florida. Florida Estimate of Population July 1, 1974, State, Counties, and Municipalities. Gainesville: University of Florida, January 1974, p. 2.

NOTE: The coefficients of the Linear Regressions of Minimum Employment Requirements in 13 Industry Types with Urban Populations for the Census Year 1960; The Brevard Population of 248,919 is the July 1, 1974 estimate.



TABLE 18

ESTIMATES OF BASIC-MINIMUM COMPONENTS  
BREVARD COUNTY  
(All Figures in Percent)

<u>Activity</u>	<u>Brevard County Employ- ment</u>	<u>Minimum Require- ment for Brevard County</u>	<u>Excess or Export Employment</u>	
			<u>Excess Col. 1 - 2</u>	<u>% of Total Excess</u>
Agriculture	1.15	0.7744	0.376	0.746
Mining	0.00	0.000	0.000	0.000
Construction	6.55	3.893	2.657	5.273
Mfg.: Durable	12.05	2.818	9.232	18.323
Mfg.: Non-Dur.	1.44	3.703	-2.263	----
Transport., etc.	5.24	3.905	1.335	2.650
Wholesale Trade	3.14	2.218	0.922	1.830
Retail Trade	20.16	12.726	7.434	14.754
Fin., Ins.	4.58	2.689	1.891	3.753
Bus. Ser.	5.50	1.642	3.858	7.657
Misc. Ser.	17.81	12.820	4.990	9.904
Pub. Admin.	22.39	2.436	19.954	39.602
Total	100.01	49.599	50.386	104.492



## CHAPTER IV

### SUMMARY AND CONCLUSIONS

The economic base of Brevard County over the past quarter century has developed along a course heavily influenced by government programs. Patrick Air Force Base, Cape Canaveral Air Force Station and the John F. Kennedy Space Center have been the employment mainstay of the County, beginning in 1949 with legislation authorizing a launching range at Cape Canaveral. Prior to this the county economy was based almost entirely on agriculture and government employment spinoffs of the Banana River Naval Air Station.

Initial spending cutbacks in National Aeronautical Space Administration and Department of Defense programs in 1969 precipitated the first of a series of economic crises for the Brevard County economy. Total employment in Brevard County, generated by the National Aeronautical Space Administration and Department of Defense programs at the Kennedy Space Center and Eastern Technical Range declined from a high of over 41,000 in 1968 to just under 18,000 in 1974. The impact on county employment levels has obviously been significant. Although sporadic periods of expansion have taken place in the interim, further decreases in National Aeronautical Space Administration and Department of Defense spending have negated any recovery that might have been in the making.



Modest gains in employment experienced during the 1972-73 period were effective in offsetting marginal aerospace losses incurred. In addition, the economy experienced some additional stability via the influx of new residents, not dependent upon the economy for employment. These families, civilian and military retirees, were largely responsible for reducing the housing stock and stimulating a small amount of new construction, thereby increasing the level of spending and local bank deposits.

In 1974, however, the economy of Brevard County again turned down. Some of the reasons for the deteriorating economic conditions were further reductions in force at NASA and DOD. Reductions in federal programs and spending as well as a drop in tourism led to a further deterioration in the county's employment base. Total unemployment in the County in July 1974 was 9.6 percent compared to 5 percent for Florida and 5.3 percent nationally. Retail sales decreased by about 3 percent causing a loss of approximately \$8.6 million in sales in the first nine months of 1974. School enrollment continued to decrease, indicative of younger people leaving the area and being replaced by retirees not dependent on the community for income. This out-migration has in part led to a loss of a skilled labor force due to the inability of the community to provide employment for the highly skilled unemployed. Vacancy rates in multi-family housing in many communities rose to 20 percent or higher.

Kennedy Space Center is scheduled to go through its last major shakeout shortly after the joint United States - Soviet space



mission is completed. About 1400 persons (nearly all contractor employees) will lose their spaceport jobs, which will reduce the spaceport's employment from the present 10,900 to about 9,500. The Civil Service staff will remain at its present level of approximately 2,259 persons.

A program started in May 1974 to attract engineering firms to Brevard and create jobs for out-of-work former aerospace engineers and technicians has had little success. Of 1000 companies contacted by the Brevard Economic Development Council, five firms responded, but no tangible results ensued.

According to the county's Division of Health & Social Services, it is unlikely that Brevard County's unemployment rate will improve in the near future. As of 1974 Kennedy Space Center and the test range accounted for 26.3 percent of the Space Coast's work force. This is only about half the peak of 53.7 percent reached in 1961, but still means the area is heavily dependent on aerospace activity--in essence, for one job out of every four.

In summary, Brevard County has never recovered from the termination of the moon program and the end of the war in Vietnam. No matter what happens on the national level, Brevard County's unemployment rate cannot be expected to decrease, nor can the number of persons employed be expected to significantly increase unless one or more of the following alternative comes to fruition:

- (a) The area's major employers--such as KSC, AFETR or Harris Corp.--receive funding from significant expansion



programs;

- (b) A new major employer is added to the county's current employer base;
- (c) A large addition of a number of smaller diversified employers is experienced, thus expanding the base of employment; or
- (d) The currently unemployed relocate to other areas.



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